

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



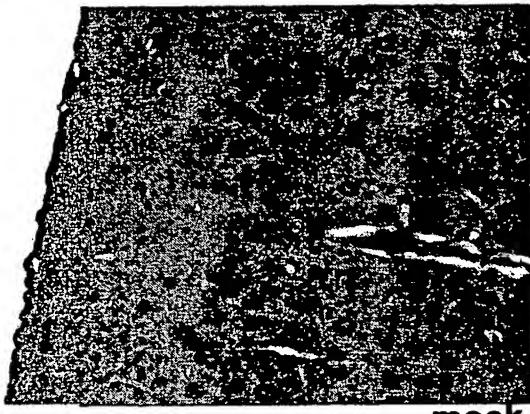
Title: Murine Calcivirus
Inventor(s): Virgin
Appln. No. 10/757,832
Docket # 56029/45752

1 / 11

A

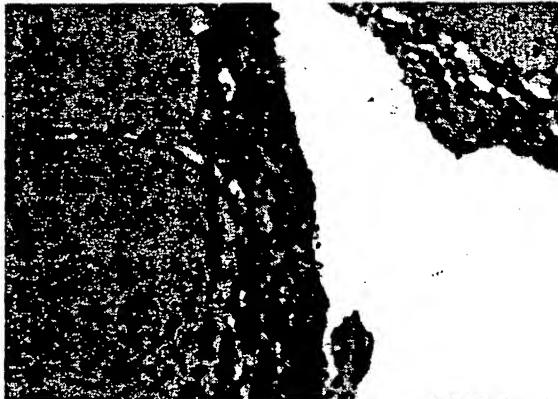
| | mouse strain | dead/total |
|------------------|---|--------------|
| Passage 0 | RAG/STAT-/- | 5/6 |
| Passage 1 | RAG/STAT-/- | 15/15 |
| Passage 2 | IFN$\alpha\beta\gamma$R-/- | 15/15 |
| | IFN$\alpha\beta\gamma$R-/- (filtered) | 9/13 |
| | 129 | 0/4 |

B



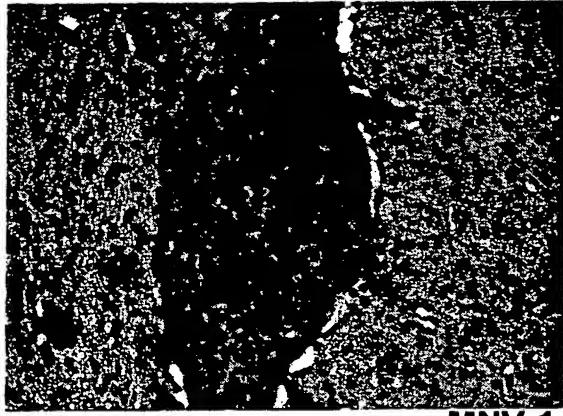
mock

C



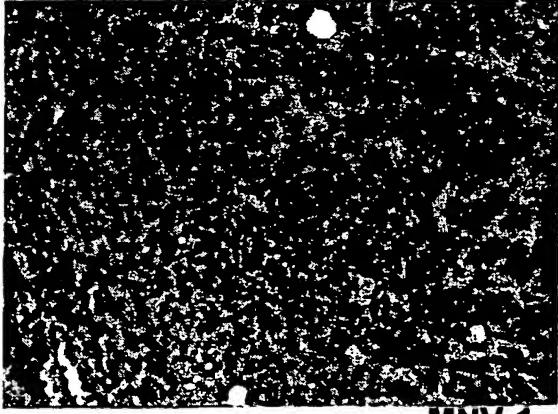
MNV-1

D



MNV-1

E

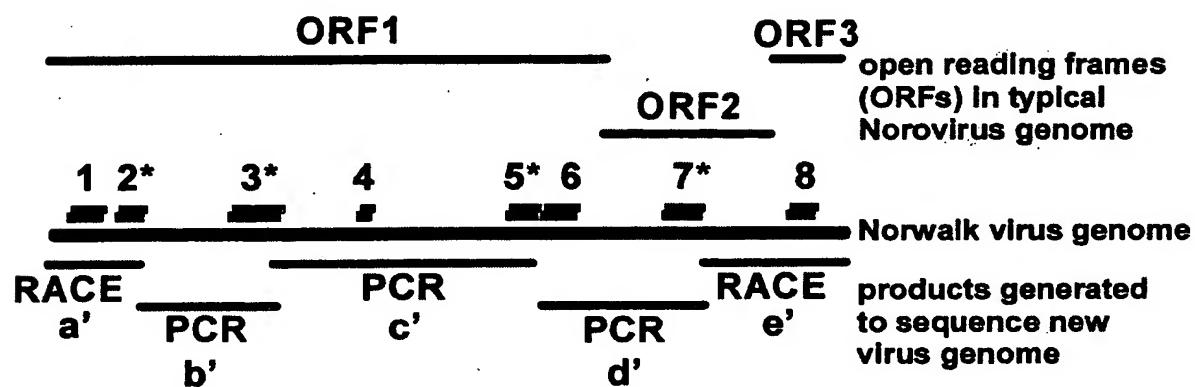


MNV-1

Figure 1

Discovery and sequencing of new virus genome

A Norwalk virus genome (7654 bp) as a framework



B MNV-1 genome (7726 bp)

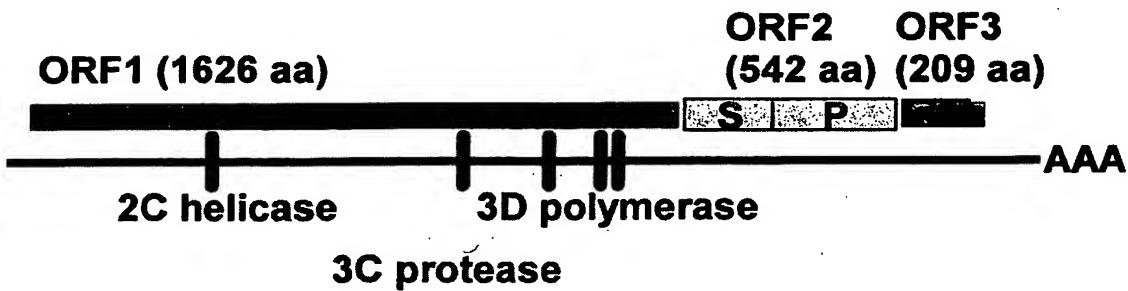


Figure 2

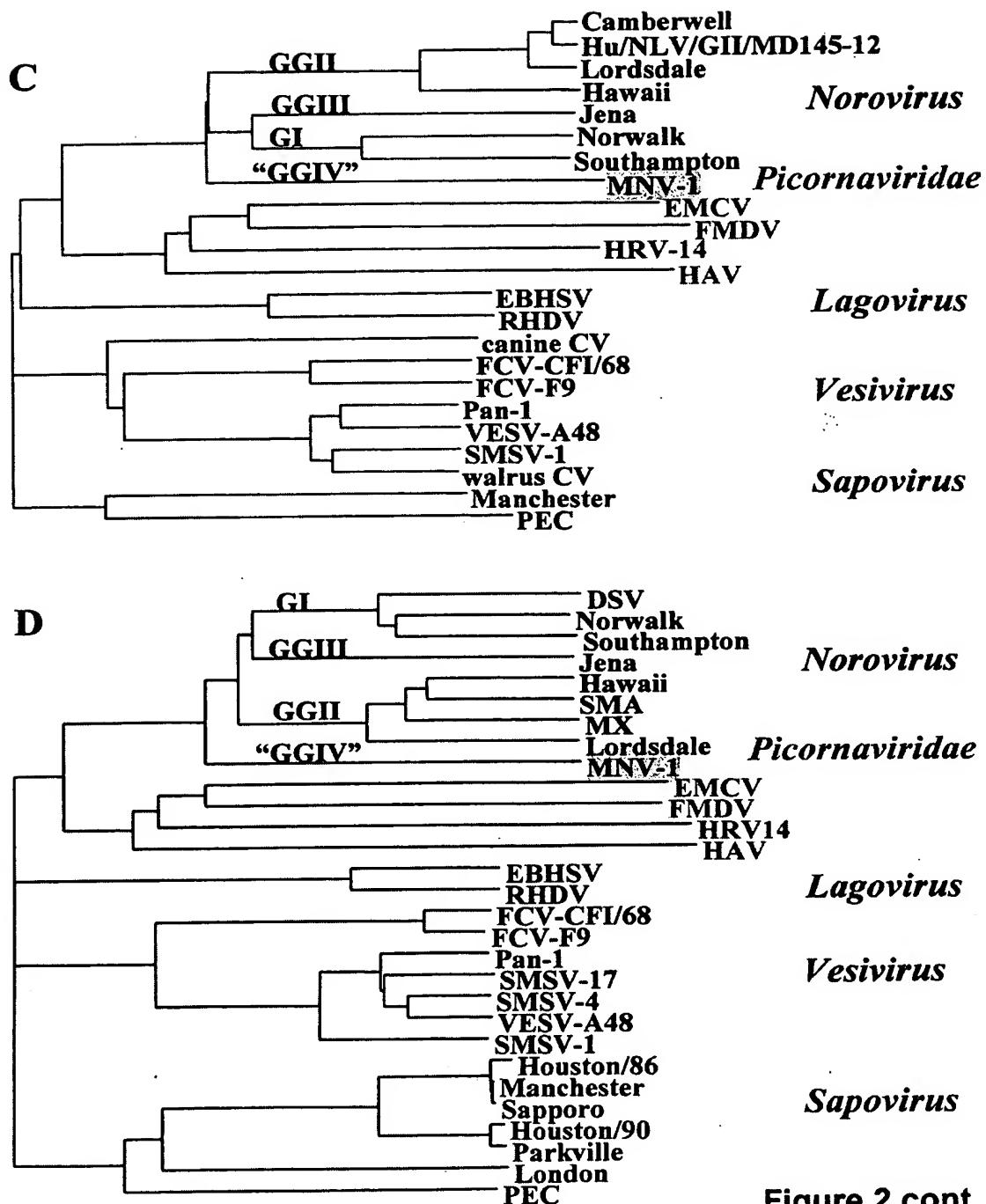
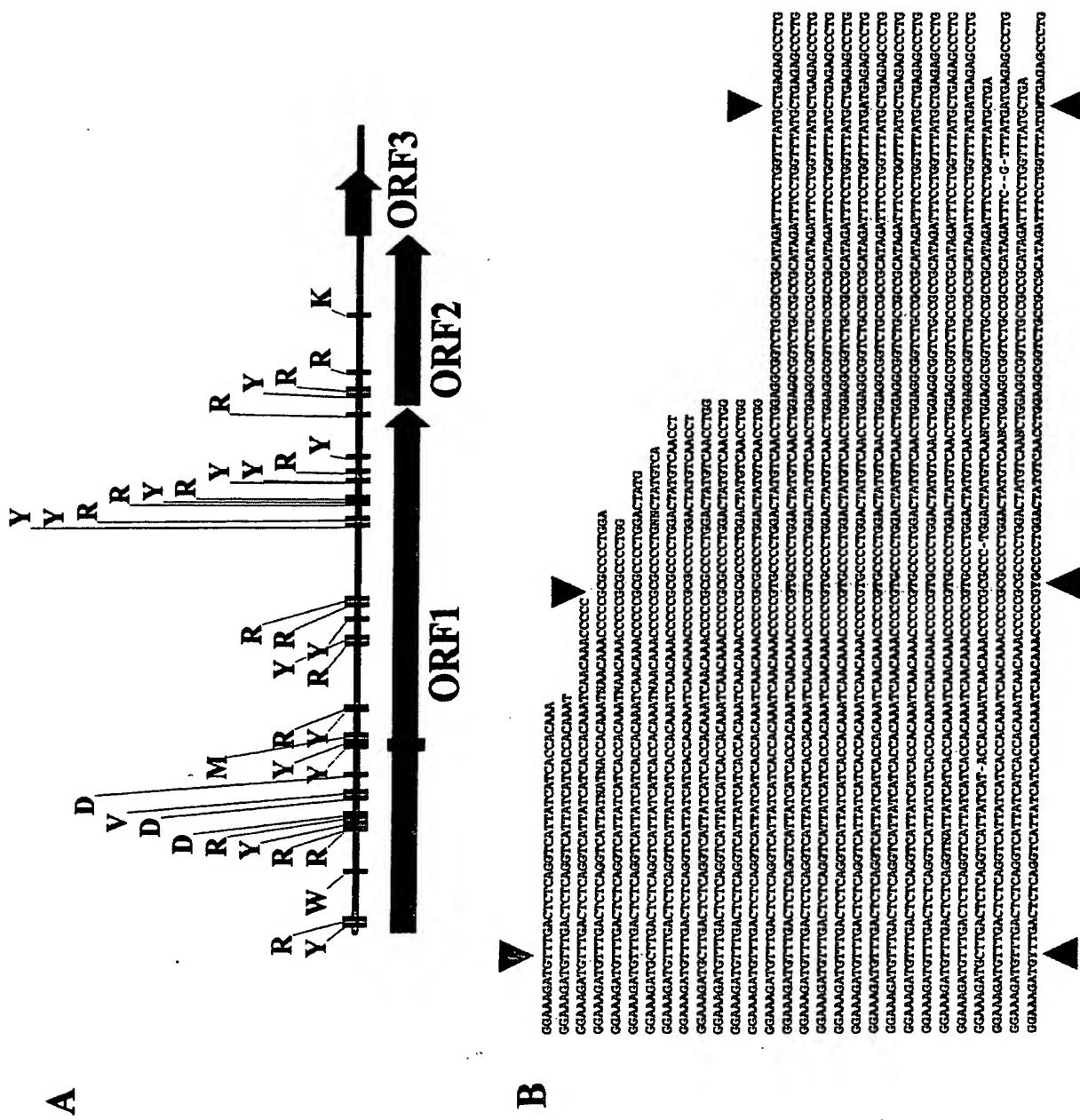


Figure 2 cont.

Figure 3



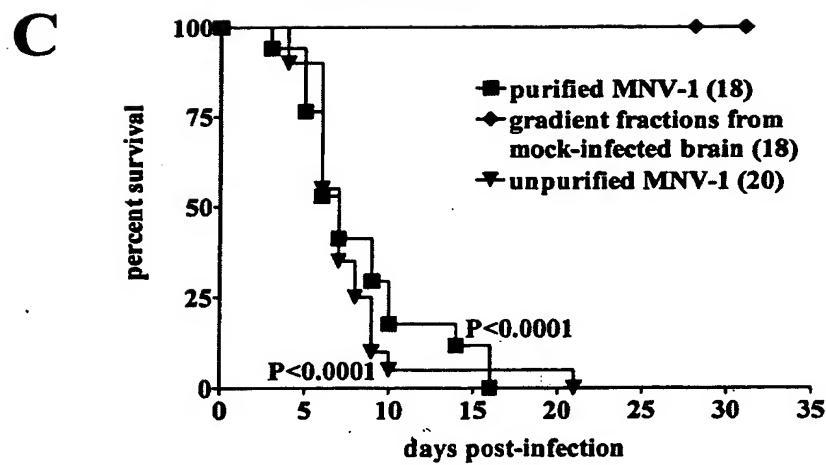
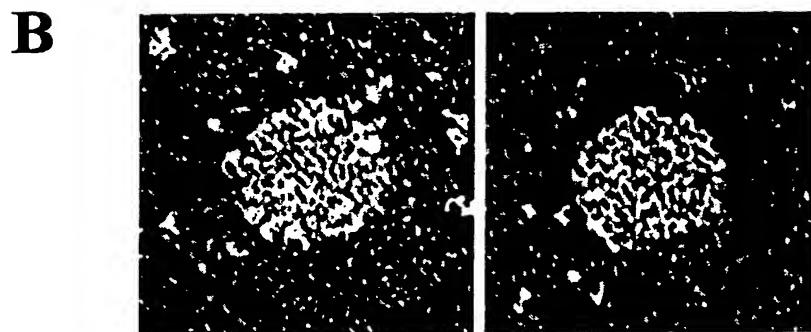
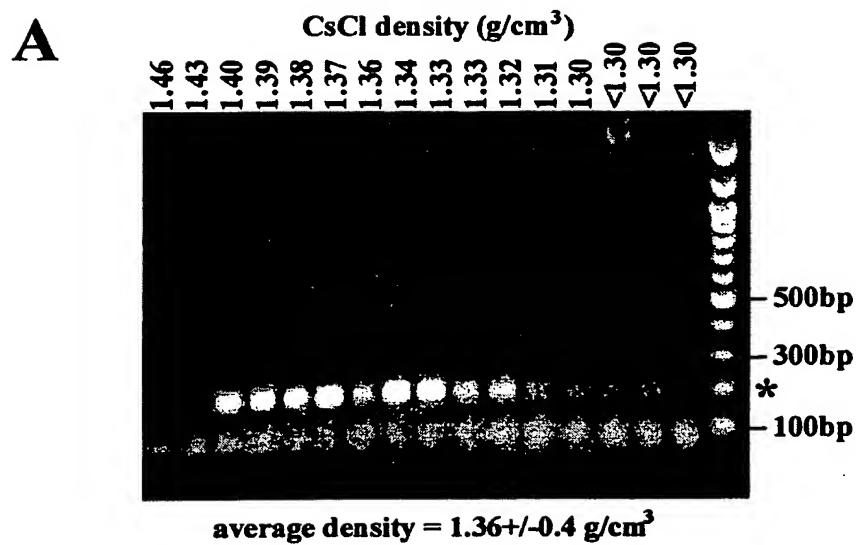


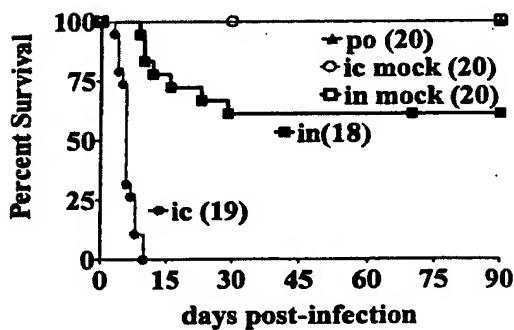
Figure 4

A

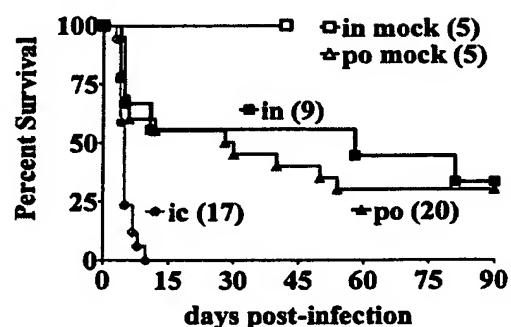
**Mouse strains demonstrating no mortality
after challenge with MNV-1**

| Mouse strain | Inoculation route, and number of mice inoculated | | |
|------------------------------------|---|-------------|-------------|
| | ic (30dpi) | in (90 dpi) | po (90 dpi) |
| 129 | 20 | 10 | 20 |
| B6 | 20 | not done | not done |
| RAG ^{-/-} | 20 | not done | not done |
| IFN $\alpha\beta$ R ^{-/-} | 19 | 10 | 10 |
| IFN γ R ^{-/-} | 19 | 10 | not done |
| iNOS ^{-/-} | 20 | not done | 20 |
| PKR ^{-/-} | 19 | not done | 20 |

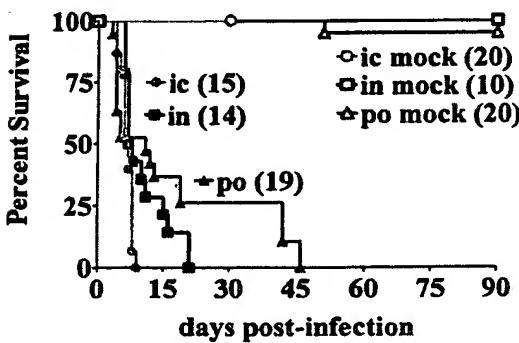
B: IFN $\alpha\beta\gamma$ R^{-/-}



C: STAT1^{-/-}



D: RAG/STAT^{-/-}



E: STAT/PKR^{-/-}

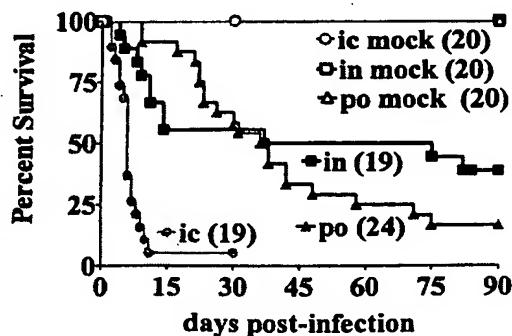
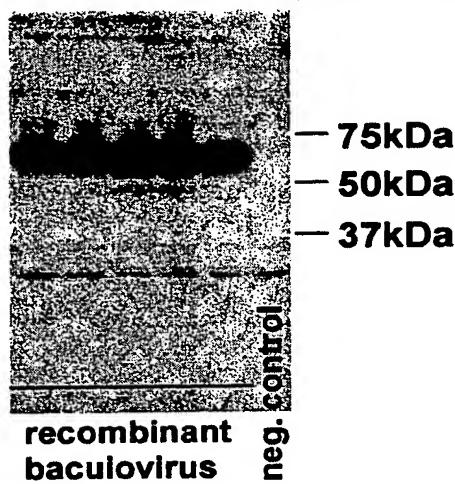
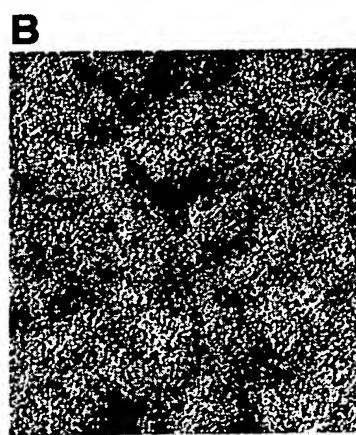


Figure 5

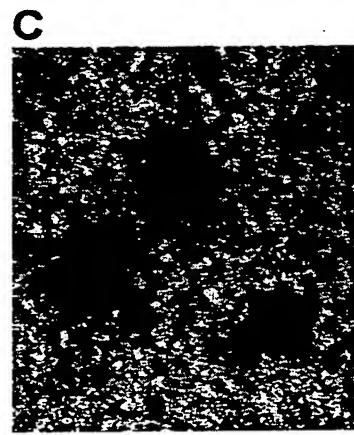
A Western blot analysis of capsid protein expression



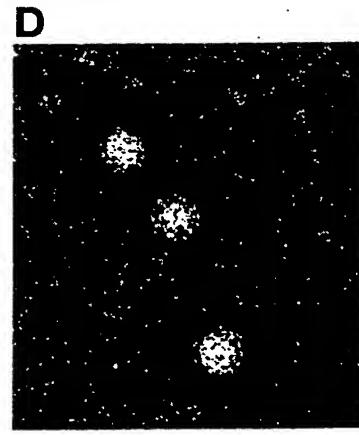
negative stain EM of MNV-1 VLPs



B
Baculovirus LacZ
(negative control)



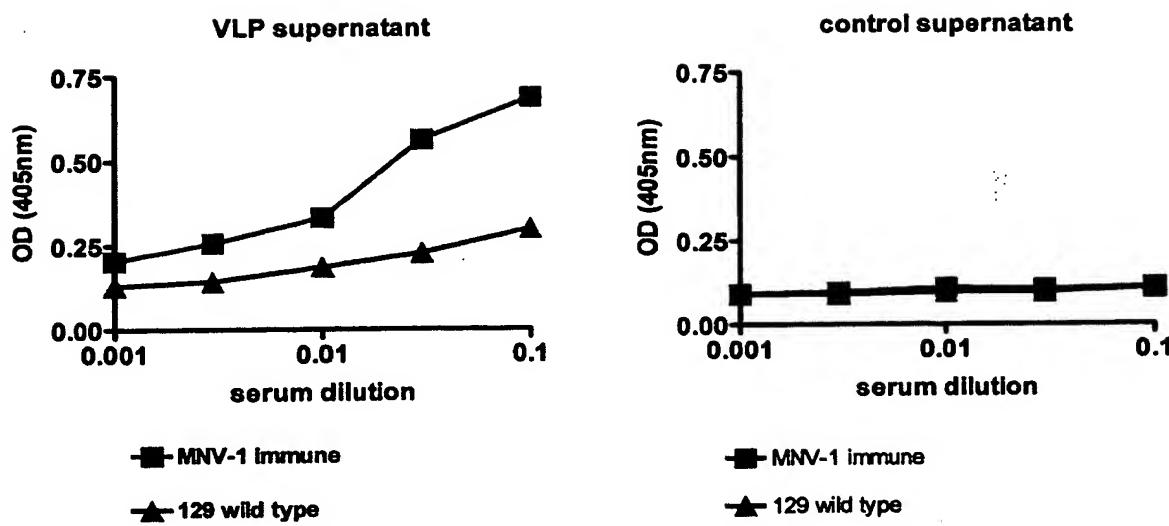
C
VLPs in infected cell
supernatants



D
purified VLPs

Figure 6

A



B

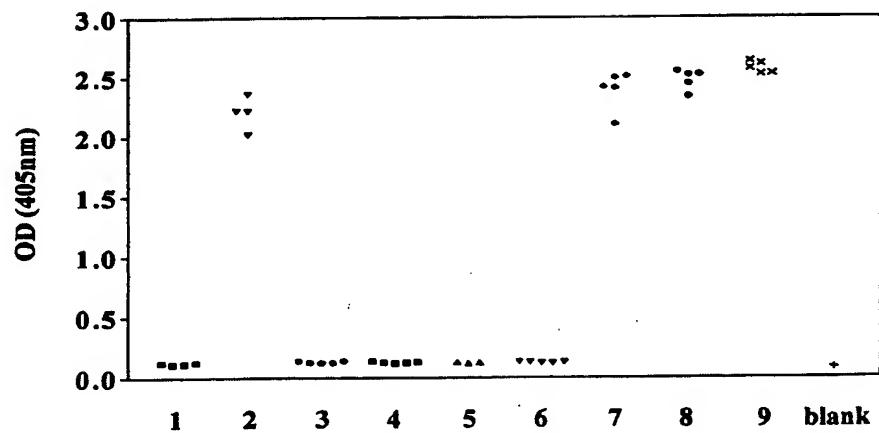


Figure 7

Tissue MCV1 RNA levels after infection via different routes

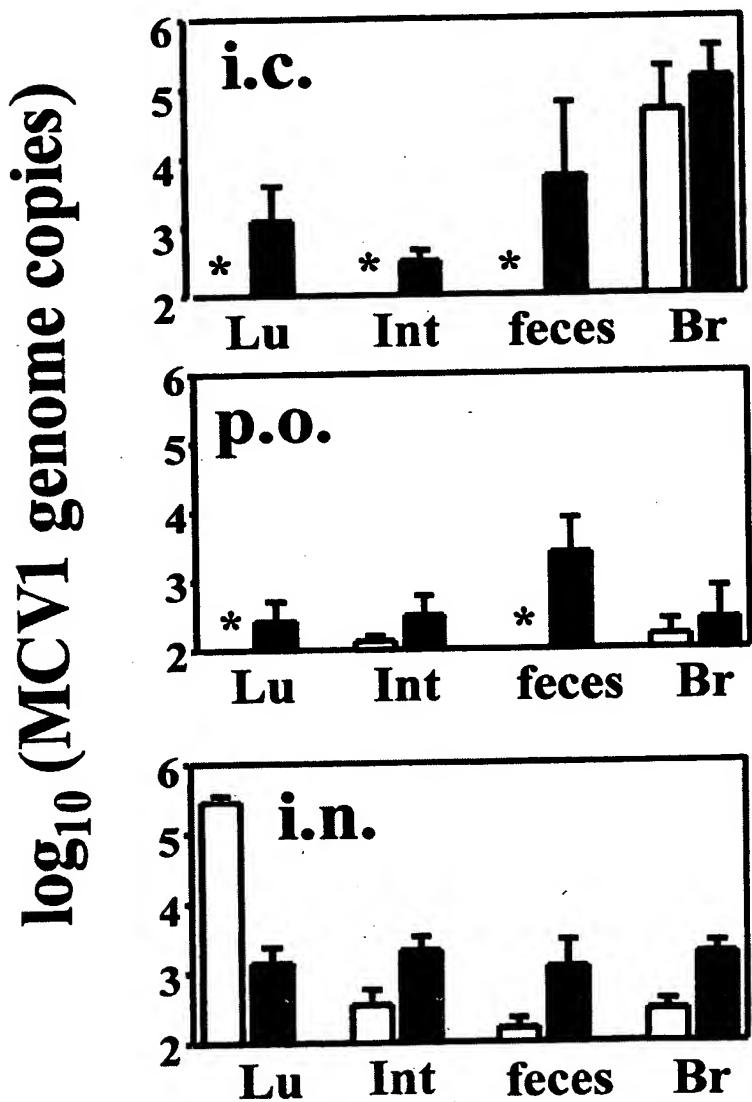


Figure 8

**Spleen sections of STAT1-/- 3dpi after p.o.
inoculation with MNV-1**

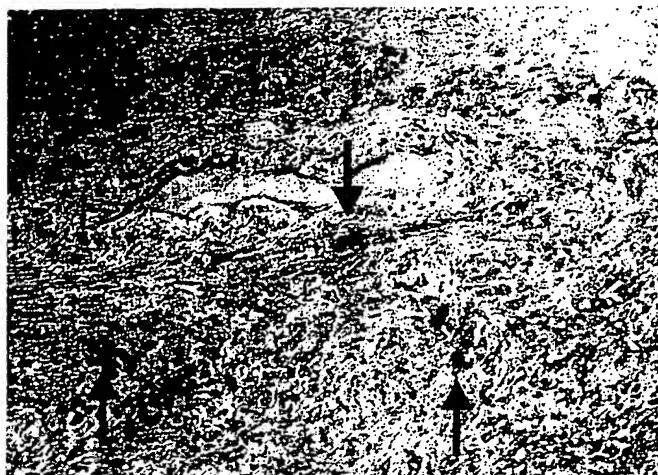


Figure 9

A



B

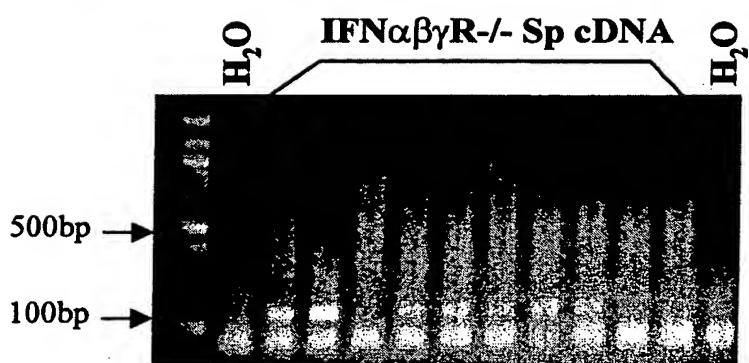


Figure 10